

# **Project Management Maturity**

## **Adding Value to Public Companies**

### **A Boral Case Study**

**Dr John Woollett**

**Project Director**

**Boral's Quarry End Use Contracting Business**

and

**Murray Gough**

**Director**

**Best Practice Project Management (BPPM)**



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## Introduction

- **John Woollett (Client)**, is Boral's Project Director of major projects in its Quarry End Use contracting division. QEU's redevelopment of the Moorebank Quarry in Sydney (\$750m) will be used as the case study to demonstrate how project management maturity has added value to Boral.
- **Murray Gough (Consultant)**, is Director of Best Practice Project Management (BPPM) and has consulted to many of Boral's contracting divisions to implement project management maturity across those divisions to improve their bottom line performance.



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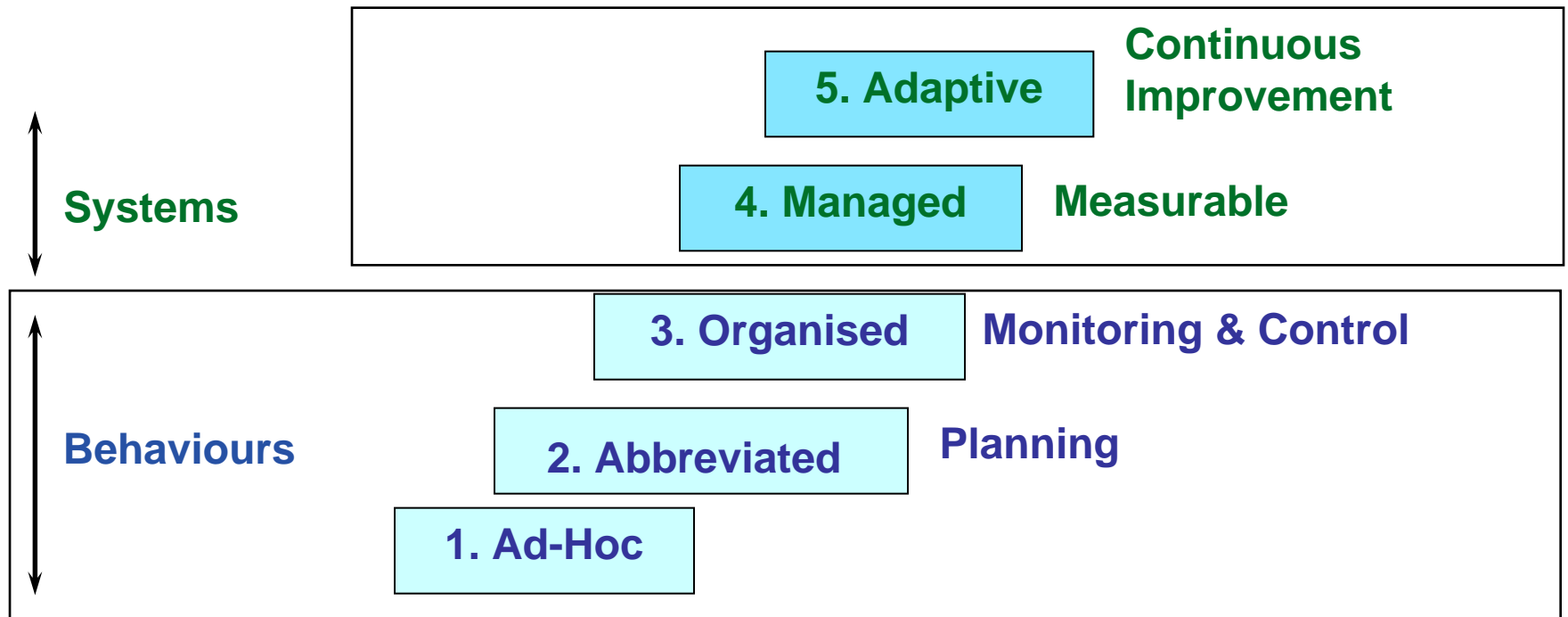
- **Boral** is a publicly listed construction materials supplier capitalised at \$3.3B and is ranked in the top 70 Australian Public Companies.
- **Australian Construction Materials (ACM)**, is a division of Boral supplying construction materials and contracting services across Australia. ACM has over 30 contracting businesses responsible for \$1.8B in revenue.
- **Quarry End Use (QEU)**, the Boral contracting division charged with maximising the value of Boral's property assets, will be used as the case study.



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## Boral Contracting Business Maturity Measures: 2002-2008



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## Where it all started:

- Documenting a methodology – the “Boral what to do” (1 day) - PMMM
- Then work instructions – the “Boral how to do” (3 days)
- Then tools and templates
- Practitioner Manual

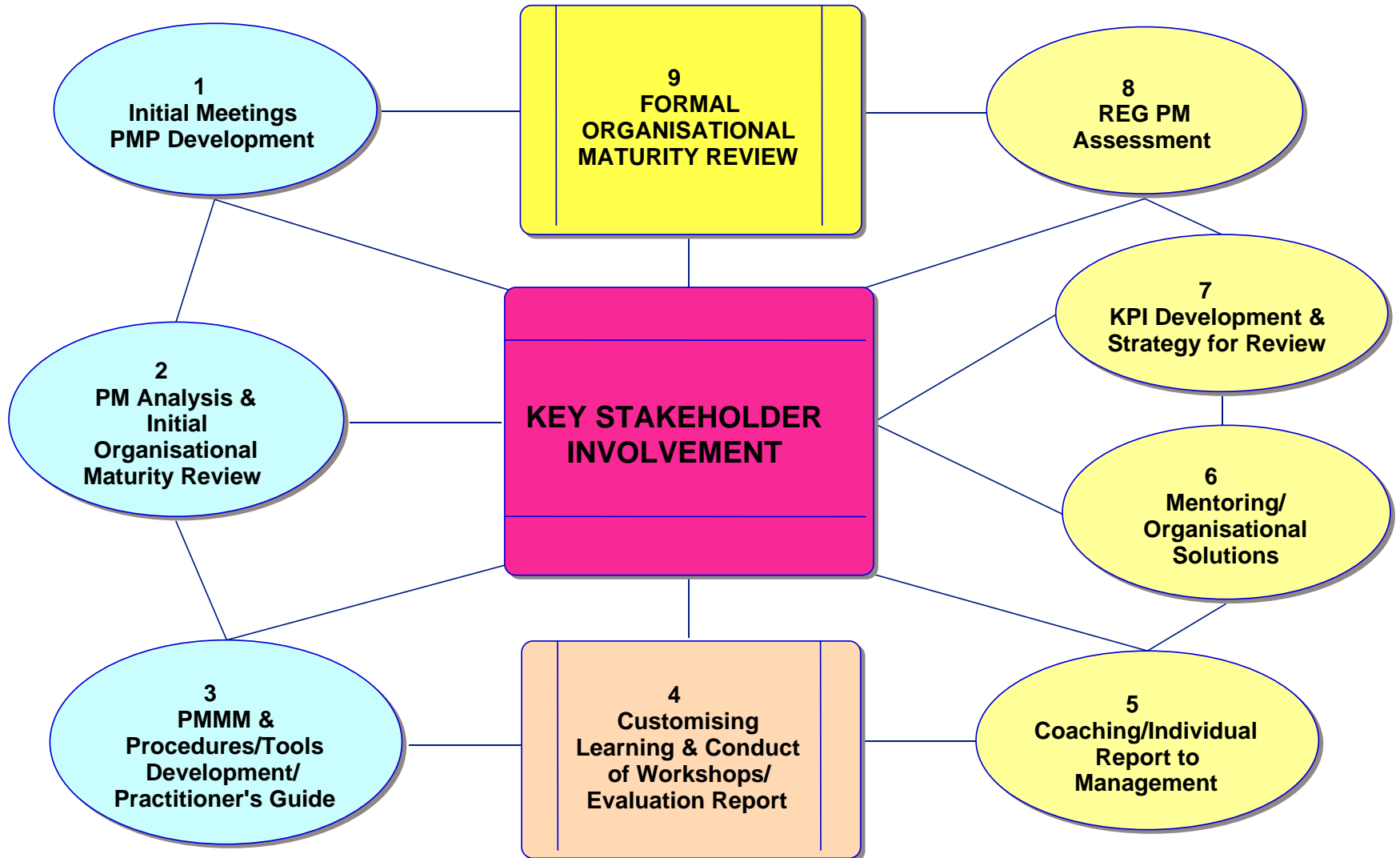
## Then:

- Executive Workshops
- PM Workshops
- Supervisor Workshops
- Coaching – Mentoring
- RegPM Certification
- KPI Reviews



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## PMM Process for Boral Contracting Businesses

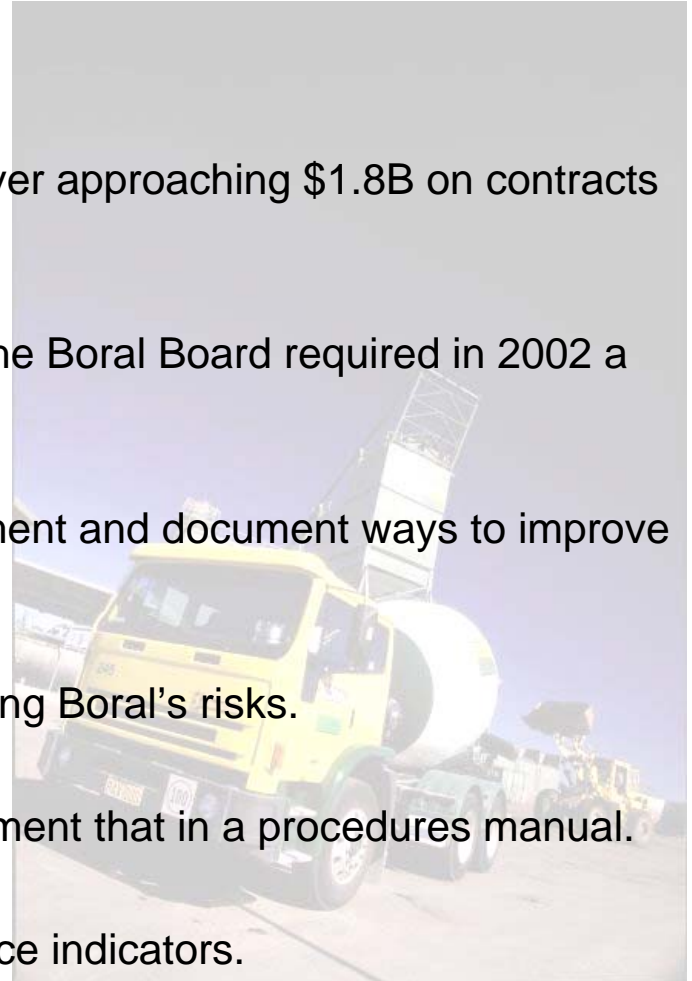


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## Boral Contracting Businesses

- Boral contracting businesses have an annual turnover approaching \$1.8B on contracts ranging from \$10K to \$300M.
- Following concern about their profitability in 2001, the Boral Board required in 2002 a process for its contracting business to:
  - Review the contracting and business management and document ways to improve profitability.
  - Agree the contracting outcomes whilst minimising Boral's risks.
  - Agree a methodology for contracting and document that in a procedures manual.
  - Document the key Boral contracting performance indicators.



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## Project Management Maturity as Change Management

- The Board requirements were for a **“change management strategy”** for its contracting businesses which focused on:
  - **Behaviour change**
    - Contracting staff workshops, training, mentoring & professional recognition.
    - Contracting staff rewards linking business KPIs to individual staff objectives and KPIs.
  - **System change**
    - Establishing Contracting Project Management Systems.
    - Establishing Contracting Business Management Systems.



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## Case Study – Moorebank Quarry Development - Sydney



**Aerial view of Moorebank Quarry 2003**



**Aerial view of Moorebank Development 2008**

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## QEU Contracting System Changes

- **Moorebank Contracting Project Management Methodology** – for each project phase

- **Scope management**
- **Time management**
- **Cost management**
- **Quality management**
- **Risk management**
- **Human Resource management**
- **Procurement management**
- **Integration management**



- Key Performance Indicators (KPI's) were assessed against each of these contracting methodologies to give a **“measure” of Moorebank’s contracting maturity.**



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## Sample Contracting Project Management KPI

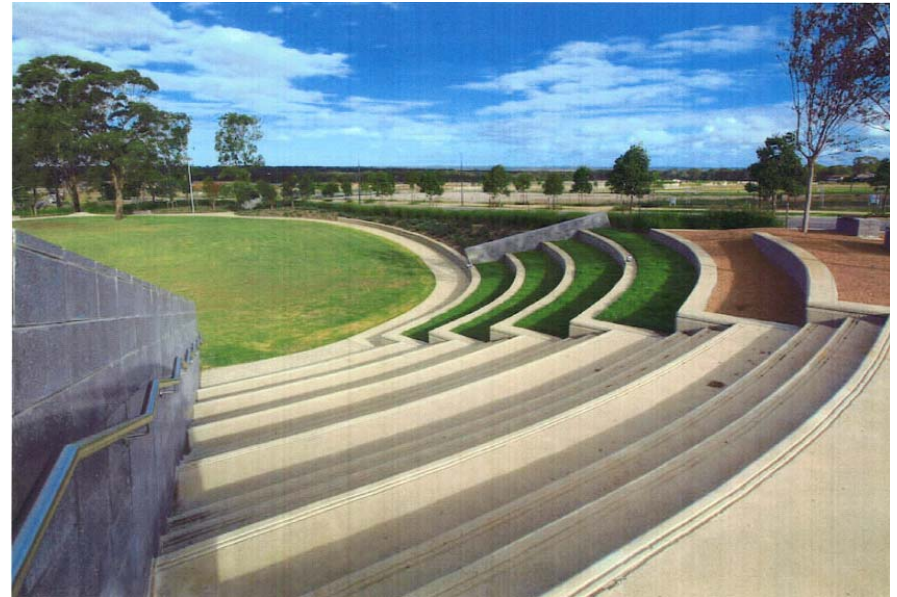
1.0 SCOPE MANAGEMENT											
	AD HOC		PLANNED		MANAGED		INTEGRATED		CONTINUOUS IMPROVEMENT		
<b>Project Scope Definition</b>	The scope is only described by the client's contract document.		A scope definition is completed.		The scope definition is signed off/agreed to by stakeholders.		Clear go/no go bid rules exist and are formally applied.  The business management team reviews this process and calls for previous decisions to evaluate current work.		Lessons learnt are systematically fed back to new projects.  Specific examples can be demonstrated.		
<b>Scope Documentation &amp; Justification</b>	The scope is documented and clear.		Objectives are measurable and aligned with the business strategy.		A system for collecting issues exists.		A clear relationship between project and business outcomes exists and is formally documented and tracked.  Business Cases are evaluated by the management team for major projects and are coordinated by the Program Manager.		The Program Management Office system, or equivalent, allows for previous scope issues to be identified and overcome for future projects.		
N/A	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5.0
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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## QEU Business System Changes

- QEU Business indicators:
  - Strategic and Business Planning
  - Leadership
  - Business Improvement Processes
  - People Management
  - Health, Safety and Environment
  - Customer Management and Markets
  - Financial Results



- Key Performance Indicators (KPI) were assessed against each of these Business indicators to give a “measure” of QEU’s business maturity.



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## Sample Contracting Business Management KPI

1. STRATEGY & PLANNING											
	AD HOC	PLANNED	MANAGED	INTEGRATED	CONTINUOUS IMPROVEMENT						
1.1 STRATEGY	Job level focus	Reactionary plans with high internal focus	Strategic Plans out to 5 years Competitor analysis evident.	Benefits and risks of contracting clearly articulated by using an enterprise-wide database.	Linked execution of Strategy (including the role of competent contracting management).						
	Lack of Strategic Planning Short term time frame	Some goals/objectives with annual budget referred to sporadically.	Some customer focus into planning	Improvement process driven by analysis and review and incorporated into Strategic Plans	Whole of business focus, incorporating a business knowledge management.						
1.2 BUSINESS PLANNING	Job List – whiteboard	Budget based on last year	Some KPIs identified and in place	Cross-functional budget integration							
	Daily problem solving	Little consultation in budget or time setting	Prioritisation of contracts in place.	Succession Planning managed	Strategic Plan that covers all relevant matters for business.						
	Conflicting goals	Limited communication of objectives	Written plans with project and business objectives linked, and communication with staff.	Understanding of core competencies/KPIs etc. evident.	Common approach to contracting management across national businesses.						
N/A	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5.0

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## Moorebank Behavioural Change Mechanisms

- Moorebank staff attend contracting **workshops, training, mentoring and staff professional certification/recognition.**
  
- **Contracting workshop** included QEU projects which contracting staff applied the tools of:
  - **Scope, cost and value management**
  - **Schedule and Time management**
  - **Risk identification, quantification and management**
  - **Communications structure, stakeholder and quality management**
  - **Human Resource management**
  - **Procurement and Contract management**
  
- QEU Project Directors, Project Managers, Project Engineers, Contract Supervisors, OH&S Officers and Project Administrators have successfully attended these contracting workshop, including follow-up coaching.
  
- QEU, including Moorebank staff, have **AIPM certification** for its Project Directors, Project Managers, Engineers and Project Associates.



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## Moorebank Behavioural Change Mechanisms

- Moorebank staff performance management included:
  - **Step 1:** Review staff workplace effectiveness and current objectives and create an individual staff plan including Moorebank's Contracting and QEU Business KPI's.
  - **Step 2:** Review and agree achievement of individual staff performance and KPIs.
  - **Annual Staff bonuses:** Including long term share options and short term monetary payments linked to individual staff performance.



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## Sample Moorebank Staff Performance KPI

Measurable Outcomes		
Minimum (20%)	Expected (60%)	Stretch (100%)
<b>QEU MANAGEMENT SYSTEMS</b>		
Review and recommend "Industry Best Practice" project scope management, communications management and knowledge management.	Document QEU project scope management, communications management and knowledge management.	Implement QEU project scope management, communications management and knowledge management.
Develop systems that documents Development Target Outcomes and links them to scope, costs, time, risks and procurement strategy.	Document QEU system for managing Development Target Outcomes and links them to project scope, costs, time, risks and procurement strategy.	Implement Development Target Outcome systems linking them to project scope, costs, time, risks and procurement strategy for QEU "tactical and pipeline" projects.
Develop a QEU "Project Health Audit" system that provides an objective measure of project progress.	Document QEU Project Health Audit system that provides objective measures of project progress.	Implement Project Health Audit systems and objectively measure QEU project progress.
<b>MOOREBANK DEVELOPMENT</b>		
Meet target landfill budget per m <sup>3</sup> costs for Moorebank.	Beat target landfill budget per m <sup>3</sup> costs by 10%.	Beat target landfill budget per m <sup>3</sup> costs by 15%.
Progress Stage 5A / 5B filling to 70% complete (by volume) with no outstanding geotechnical issues.	Progress Stage 5A / 5B filling to 75% complete (by volume) with no outstanding geotechnical.	Progress Stage 5A / 5B filling to 85% complete (by volume) with no outstanding geotechnical issues.
Progress Stage 5A / 5B filling with no more than 6 community issues as recorded in CAG meetings.	Progress Stage 5A / 5B filling with no more than 4 community issues as recorded in CAG meetings.	Progress Stage 5A / 5B filling with no more than 2 community issues as recorded in CAG meetings.
Resolve MJV interface issues within Boral's cost plan and program.	Resolve MJV interface issues 10% under Boral's cost plan and program.	Resolve MJV interface issues 15% under Boral's cost plan and program.



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## Moorebank Contracting Maturity Improvements

No	Contracting KPI Summary	Avg 2004	Avg 2005	Avg 2006	Avg 2007	Draft 2008
1	Scope Management	1.5	2.5	3.5	4.0	4.0
2	Time Management	1.0	2.0	3.0	3.5	4.0
3	Cost Management	1.0	1.5	3.0	4.0	4.1
4	Quality Management	1.0	3.0	3.0	4.0	4.0
5	Risk Management	2.0	2.5	3.5	4.0	4.2
6	Human Resources Mgt	1.0	2.0	3.0	3.5	4.0
7	Communications Mgt	2.0	3.0	3.5	4.0	4.1
8	Contract Administration	1.5	2.5	2.5	3.5	3.8
9	Variations Management	n/a	n/a	n/a	4.0	4.0
	<b>Average</b>	<b>1.4</b>	<b>2.4</b>	<b>3.12</b>	<b>3.83</b>	<b>4.02</b>

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## QEU Business Maturity Improvements

No	Business KPI Summary	Avg 2004	Avg 2005	Avg 2006	Avg 2007	Draft 2008
1	Strategy & Planning	2.5	3.0	3.5	4.0	4.0
2	Leadership	2.0	2.5	3.0	3.5	3.8
3	People	2.0	2.5	3.0	3.5	3.7
4	Health Safety & Environment	2.5	3.0	3.5	4.0	4.1
5	Customer Mgt & Market Focus	1.0	2.0	2.5	3.5	3.8
6	Business Improvement Processes	2.0	2.5	3.0	3.5	3.7
7	Results	2.5	3.0	3.5	3.5	3.9
	Average	<b>2.07</b>	<b>2.64</b>	<b>3.14</b>	<b>3.64</b>	<b>3.86</b>



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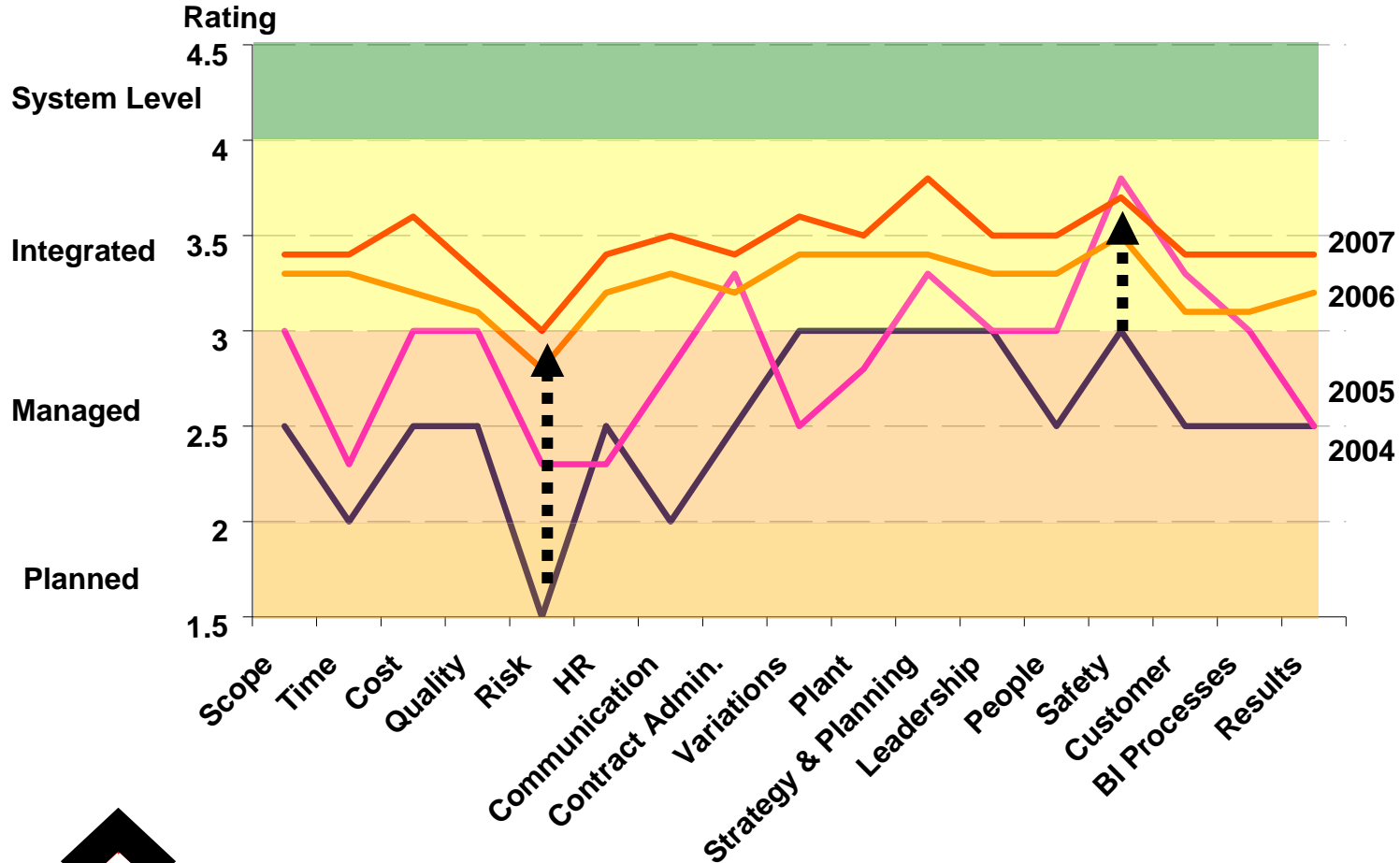
## Sample QEU KPI Review Report

- **“The QEU “backbone” processes are now in place to streamline how projects are selected, planned and implemented.”**
- **“Portfolio risk profiling of projects is being undertaken in conjunction with Boral Corporate and linked to Corporate objectives.”**
- **“The standard of QEU reporting at project, business and executive level is highly commendable. The Managing Director is being briefed quarterly on QEU’s progress.”**



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## Boral Contracting Average Improvements



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## Boral roll out to 2008 –major project areas

Boral PM Streams	Phase 1 Procedures	Phase 2 Manuals	Phase 3 Online Manual	Phase 4 KPI Reviews	Phase 5 RegPM Certification by AIPM	Phase 6 Continuous Improvement Certification
Revenue Contracting Business	Generic PMMM & Manual in place since 2002	Customised by most Businesses	Completed with some businesses developing	Completed with evidence to substantiate maturity levels	Substantial number certified and remainder pending	Not yet but some businesses eligible
Capital Projects Business	PMMM & Manual developed	Tools in place and ratified	Planned for 2008	Completed with customised KPI Matrix in place	Roll out in 2008 / 09	TBA
Shared Business Services Projects	Developed and in place end 2007	Customised PMMM & Manual in place end 2007	Completed in 2008	Completed with development ongoing	Roll out 2008 with certification 2008 / 09	TBA

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**Conclusion:** Boral's Project Management Maturity initiative has resulted in its contracting business having the following personnel outcomes:

- **Contracting business leaders and managers** who have evolved from ad hoc managers to running maturing and well managed contracting businesses that continue to improve.
- **Motivated contracting staff** with career paths being trained and **AIPM Certified** as Boral's future leaders.
- Contracting managers and staff with annual **rewards linked to their personal objectives and KPI's and the Contracting Business KPI's.**



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**Conclusions:** Boral's Contracting Businesses have evolved:

- From ad hoc management, **to well managed businesses with predictable and measurable financial and strategic outcomes.**
- From disasters waiting to happen, **to businesses that are well managed and controlled through the application of project contracting systems.**
- From not being able to undertake major projects, **to having the organisational maturity to successfully undertake major projects like the Moorebank Quarry Redevelopment.**
- From risky contracting businesses, **to businesses with on average 15% increased bottom line profits meeting annual budgets while minimising contracting risks.**

